

Prognostic value of ventricular arrhythmias associated with treadmill exercise testing in patients studied with cardiac catheterization for suspected ischemic heart disease

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The prognostic information provided by ventricular arrhythmias associated with treadmill exercise testing was evaluated in 1,293 consecutive nonsurgically treated patients undergoing an exercise test within 6 weeks of cardiac catheterization. The 236 patients with simple ventricular arrhythmias (at least one premature ventricular complex, but without paired complexes or ventricular tachycardia) had a higher prevalence of significant coronary artery disease (57 versus 44%), three vessel disease (31 versus 17%) and abnormal left ventricular function (43 versus 24%) than did patients without ventricular arrhythmias. Patients with paired complexes or ventricular tachycardia had an even higher prevalence of significant coronary artery disease (75%), three vessel disease (39%) and abnormal left ventricular function (54%). In the 620 patients with significant coronary artery disease, patients with paired complexes or ventricular tachycardia had a lower 3 year survival rate (75%) than did patients with simple ventricular arrhythmias (83%) and patients with no ventricular arrhythmias (90%). Ventricular arrhythmias were found to add independent prognostic information to the noninvasive evaluation, including history, physical examination, chest roentgenogram, electrocardiogram and other exercise test variables ($p = 0.03$). Ventricular arrhythmias made no independent contribution once the cardiac catheterization data were known. In patients without significant coronary artery disease, no relation between ventricular arrhythmias and survival was found.

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